

UNITED STATES AIR FORCE

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AEROSPACE PHYSIOLOGY

AFSC 911X0

AFPT 90-911-805

NOVEMBER 1988

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OCCUPATIONAL ANALYSIS PROGRAM USAF OCCUPATIONAL MEASUREMENT CENTER AIR TRAINING COMMAND RANDOLPH AFB, TEXAS 78150-5000

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PREFACE

This report presents the results of an Air Force occupational survey of the Aerospace Physiology (AFSC 911X0) career ladder. Authority for conducting occupational surveys is contained in AFR 35-2. Computer products used in this report are available for use by operations and training officials.

Chief Master Sergeant Anthony O'Flaherty developed the survey instrument, Ms Rebecca Hernandez provided computer programming support, and Ms Raquel A. Soliz provided administrative support. Mr Daniel E. Dreher and Captain Jim McCutcheon, Canadian Forces Exchange Officer, analyzed the data and wrote the final report. Lieutenant Colonel Charles D. Gorman, Chief, Airman Analysis Branch, Occupational Analysis Division, USAF Occupational Measurement Center, reviewed and approved this report for release.

Copies of this report are distributed to Air Staff sections, major commands, and other interested training and management personnel. Additional copies may be requested from the Occupational Measurement Center, Attention: Chief, Occupational Analysis Division (OMY), Randolph AFB, Texas 78150-5000.

RONALD C. BAKER, Colonel, USAF Commander USAF Occupational Measurement Center JOSEPH S. TARTELL Chief, Occupational Analysis Division USAF Occupational Measurement Center

SUMMARY OF RESULTS

- 1. <u>Survey Coverage</u>: This report is based on data collected from 397 respondents constituting 77 percent of all assigned AFSC 911X0 personnel. MAJCOMs and DAFSCs are proportionally represented in the sample.
- 2. <u>Career Ladder Structure</u>: Survey data show there are five technically-oriented jobs and one supervisory and administrative job. Ninety-five percent of all respondents are included in these six jobs.
- 3. <u>Career Ladder Progression</u>: Members of the career ladder progress typically through the skill levels. Three- and 5-skill level members perform technical jobs, 7-skill level members are first-line supervisors performing a mixture of technical and supervisory tasks, while 9-skill level members are the career ladder managers.
- 4. <u>Training Considerations</u>: Most of the Specialty Training Standard (STS) is supported by survey data. Percent members performing figures suggest 3-skill level training codes for several STS elements could be changed from a task knowledge to a performance level. Unmatched tasks suggest expansion of some STS paragraphs, as well as inclusion of additional topics.
- 5. Other Training Issues: Survey data show there is little overlap with Aircrew Life Support (AFSC 122X0) jobs. Also, the number of chamber flights or dives varies somewhat by the particular job AFSC 911X0 airmen have and by particular MAJCOM mission.
- 6. <u>Job Satisfaction</u>: Satisfaction for members of the jobs is satisfactory. Airmen working with the centrifuge, pressure suits, and research chamber feel their training is not being used as well, which is understandable. Indicators have remained stable for TAFMS groups over the last 8 years.
- 7. <u>Implications</u>: Survey data suggest some changes in the STS are needed. Functional and school personnel need to consider expanding some paragraphs, adding some new topics, and changing 3-skill level learning codes.



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OCCUPATIONAL SURVEY REPORT AEROSPACE PHYSIOLOGY (AFSC 911X0)

INTRODUCTION

This is a report of an occupational survey of the Aerospace Physiology (AFSC 911XO) career ladder completed by the USAF Occupational Measurement Center in October 1988. This career ladder was last surveyed in 1980. A number of changes have occurred since then, including involvement with High Altitude Airdrop Mission Support (HAAMS) and training aircrews from South American countries. The survey was requested by USAFOMC/OMYXR, Future Requirements, to validate the September 1988 Specialty Training Standard.

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Background

AFR 39-1 Specialty Description states that AFSC 911X0 personnel operate and maintain aerospace physiology devices and altitude chambers; instruct and observe on chamber flights; and instruct flying personnel on aircraft pressurization, night vision, emergency first aid, oxygen equipment, and emergency escape. They may also work in hyperbaric chamber operations, assist with physiological research and development, instruct parasail techniques, and function as a high altitude suit technician. AFR 50-27 (Air Force Aerospace Physiology Training Program) requires AFSC 911X0 personnel to rotate through all sections of aerospace physiological training units so they gain experience with hypobaric chamber operations and maintenance, egress and parachute training, oxygen masks and associated equipment, classroom instruction, and various briefings.

Approximately 34 members a year enter the specialty by attending a 4-week, Air Force Systems Command 3ABY91130 course taught at Brooks AFB TX to learn basic physiological principles, altitude chamber operations, chamber crew duties, and how to operate ejection, swing landing, and parasail training devices. Once they have gained experience at their base of assignment, they are sent to the nearest technical training center to complete the Technical Training Instructor course. Until the spring of 1988, graduates assigned to units operating hyperbaric chambers and with 6 months experience returned to Brooks AFB to attend a 10-day Hyperbaric Chamber Enlisted Team Training course. Starting in November 1988, all basic course students will complete the 2-week hyperbaric training as part of their resident training.

SURVEY METHODOLOGY

Data for this survey were collected using USAF Job Inventory AFPT 90-911-805 (August 1987). The Inventory Developer reviewed pertinent career ladder documents, and the previous OSR and job inventory, and then prepared a

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tentative task list. The task list was validated through personal interviews with a total of 32 subject-matter experts at the technical school and in Physiology Training units at the five bases listed below:

BASE	REASON FOR VISITING BASE
Brooks AFB TX	The Technical School for AFSC 911XO is here, as well as training and research chambers, and a hypobaric medical treatment facility.
Mather AFB CA	Physiological training for undergraduate navigator trainees is conducted here.
Beale AFB CA	Home of SAC strategic reconnaissance air- craft with their unique requirements.
Sheppard AFB TX	This is a busy Euro-NATO undergraduate Jet Pilot Training base.
Little Rock AFB AR	Home of the High Altitude Airdrop Mission Support (HAAMS) expertise.

The final inventory contains 508 tasks grouped under 14 duty headings and standard background questions asking for DAFSC, organization of assignment, MAJCOM, duty title, TAFMS, and time in career ladder. There are additional questions asking respondents to indicate the number of times per month they serve as a crewmember on chamber dives and hypobaric flights, as well as the number of days they have been on Duty Not Including Flying (DNIF) during the past year. The functional manager will use responses to these questions to determine how AFSC 911XO personnel are being used in the field.

Survey Administration

From December 1987 through April 1988, Consolidated Base Personnel Offices at operational bases worldwide administered the surveys to AFSC 911X0 personnel selected from a computer-generated mailing list provided by the Air Force Human Resources Laboratory. Respondents were asked to complete the identification and biographical information section first, go through the booklet and mark all tasks they perform in their current job, and then go back and rate each task they marked on a 9-point scale reflecting the relative amount of time spent on each task. Time spent ratings range from 1 (indicating a very small amount of time spent) to 9 (indicating a very large amount of time spent).

The computer calculated the relative percent time spent on all tasks for each respondent by first totalling ratings on all tasks, dividing the rating for each task by this total, and multiplying by 100. The percent time spent ratings from all inventories were then combined and used with percent member performing values to describe various groups in the career ladder.

Survey Sample

Because there are only 515 personnel in the AFSC 911X0 career ladder, all eligible members (those not in PCS, a student, in hospital status, or having less than 6 weeks on the job) received a survey booklet. The final sample included responses from 397 members. As shown in Tables 1 and 2, the MAJCOM and DAFSC representation in the sample is very close to that of the total AFSC 911X0 population.

Data Processing and Analysis

Once the job inventories are received from the field, demographic data, such as name, duty AFSC, and time in career ladder, are manually entered to form one computer file. Responses to task statements and background information, on the other hand, are optically scanned to become another computer file. The two files are merged to form one complete case record for each respondent. Comprehensive Occupational Data Analysis Programs (CODAP), a series of computer programs used to process survey data, then create a job description for each respondent, as well as composite job descriptions for members of various demographic groups. These job descriptions are used for much of the occupational analysis.

Task Factor Administration

Personnel who make decisions about career ladder documents and training programs need task factor data (training emphasis and task difficulty ratings) as well as job descriptions. The survey process provides these data by asking selected E-6 and E-7 supervisors to complete either a training emphasis (TE) or task difficulty (TD) booklet. These booklets are processed separately from the job inventories and TE and TD data are used in several analyses discussed later in this report.

Training Emphasis (TE). Training emphasis is the amount of structured training that first-enlistment personnel need to perform tasks successfully. Structured training is defined as training provided by resident technical schools, field training detachments (FTD), mobile training teams (MTT), formal OJT, or any other organized training method. Fifty experienced AFSC 91170 supervisors rated the tasks in the inventory on a 10-point TE scale ranging from 0 (no training required) to 9 (much structured training required). Interrater reliability (as assessed through components of variance of standard group means) is .96, indicating high agreement between raters.

TE ratings, when used with percent members performing values and TD, can help validate the need for organized training and provide insight into the 3-skill level training codes needed on individual STS elements.

Task Difficulty (TD). Task difficulty is defined as an estimate of the length of time the average airman takes to learn how to perform each task listed in the inventory. Forty-five experienced AFSC 91170 supervisors rated the difficulty of the tasks in the inventory on a 9-point scale ranging from 1

TABLE 1
COMMAND DISTRIBUTION OF SAMPLE

COMMAND	PERCENT OF ASSIGNED	PERCENT OF SAMPLE
SAC	31%	29%
ATC	22%	24%
AFSC	16%	16%
TAC	11%	11%
MAC	5%	5%
AFLC	4%	4%
PACAF	4%	3%
USAFE	3%	3%
SPACE	3%	3%
OTHER	1%	2%

TOTAL ASSIGNED = 515 TOTAL ELIGIBLE = 472

TOTAL IN FINAL SAMPLE = 397

PERCENT OF ASSIGNED IN SAMPLE = 77% PERCENT OF ELIGIBLE IN SAMPLE = 84%

TABLE 2
DAFSC DISTRIBUTION OF SAMPLE

	PERCENT OF	PERCENT OF
DAFSC	ASSIGNED	SAMPLE
91130	34%	24%
91150	44%	48%
91170	17%	23%
91190	4%	4%
91100	1%	1%

(easy to learn) to 9 (very difficult to learn). Ratings are adjusted so tasks of average difficulty have a value of 5.0. Interrater reliability (as assessed through components of variance of standard group means) is .93, indicating high agreement.

The computer uses the TE and TD ratings for each task in the inventory, percent of first-enlistment respondents performing, and the training decision table found in AFR 52-22 to compute an Automated Training Indicator (ATI) value for each task. This ATI, the TE and TD values, as well as percent of various groups of respondents performing, are the data used to make decisions about training requirements. These data are discussed later in the Training Analysis section of the OSR.

SPECIALTY JOBS (Career Ladder Structure)

The first step in the analysis process is to identify the structure of the career ladder in terms of jobs performed. CODAP assists by creating an individual job description for each respondent based on the tasks performed and relative amount of time spent on the tasks. The CODAP automated job clustering program then compares all the individual job descriptions, locates the two descriptions with the most similar tasks and time spent ratings, and combines them to form a composite job description. In successive stages, new members are added to this initial group or new groups are formed based on the similarity of tasks and time spent ratings. This process continues until all respondents have been included in a group.

The basic group CODAP uses for the clustering process is a <u>job</u>, or those individuals who perform many of the same tasks and spend a similar amount of time performing them. When several jobs are similar, they form a <u>cluster</u>. If members of a job perform tasks that are so different they cannot be included in a cluster, they are referred to as being an <u>independent job</u>. These definitions were used to describe the Aerospace Physiology specialty and the variations in jobs within the specialty. In addition, this information was used to evaluate the accuracy and completeness of AFR 39-1 Specialty Descriptions, the Specialty Training Standard, and how career ladder members are being used.

Overview

Survey data show there are five technically-oriented jobs and one supervisory and administrative job that members of this career ladder fulfill (Figure 1). AFR 50-27 (Air Force Aerospace Physiology Training Program) requires AFSC 911XO personnel to rotate through all sections of aerospace physiological training units so they are experienced in all aspects of the career ladder, including hypobaric chamber operations and maintenance, egress and parachute training, oxygen masks and associated equipment, classroom instruction, and various briefings. Often, Aerospace Physiology personnel

AFSC 911XO PERSONNEL IN CAREER LADDER JOBS

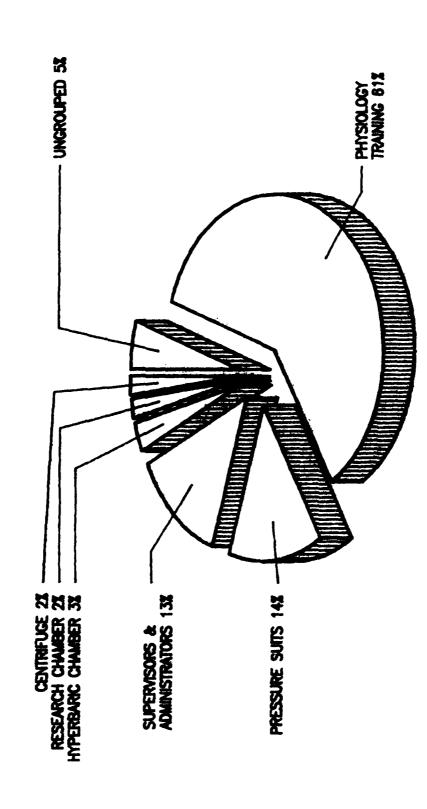


FIGURE 1

perform tasks related to more than one job in a day. For example, they may instruct on the parachute training device in the morning and be part of a chamber flight crew in the afternoon.

The six jobs performed by AFSC 911X0 personnel are listed below. The relative time respondents spend on duties is presented in Table 3, while background information on members working in each job is presented in Table 4. The Stage (STG) number beside the job title is a group reference number assigned by CODAP, and the letter "N" refers to the number of respondents in each job.

- AEROSPACE PHYSIOLOGY TRAINING PERSONNEL (STG030, N=243)
- II. PRESSURE SUIT PERSONNEL (STG012, N=55)
- III. SUPERVISORS AND ADMINISTRATORS (STG026, N=50)
- IV. HYPERBARIC CHAMBER PERSONNEL (STG027, N=10)
- V. RESEARCH CHAMBER PERSONNEL (STG032, N=8)
- VI. CENTRIFUGE PERSONNEL (STG009, N=6)

Brief descriptions of each job are presented below and representative tasks performed by respondents in each job are listed in Appendix A.

I. <u>AEROSPACE PHYSIOLOGY TRAINING PERSONNEL (STG030, N=243)</u>. This is the core job of the career ladder. Members with this job spend 24 percent of their time conducting aerospace physiology instruction, 16 percent operating or maintaining hypobaric chambers, 13 percent performing administrative functions, and 9 percent each operating and maintaining aerospace physiology equipment, and performing life support functions. Over half the personnel in this job are in their lirst enlistment and hold the 5-skill level and a majority are in paygrades E-1 to E-4. Physiology Training Personnel perform an average of 93 tasks, and in terms of most time spent, are distinguished by the following tasks:

serve as inside observer on hypobaric chamber flights serve as recorder on hypobaric chamber flights serve as chamber operator on hypobaric chamber flights serve as crew chief on hypobaric chamber flights serve as lock operator on hypobaric chamber flights treat reactors for middle ear problems make entries on AF Forms 701 (Chamber Flight Record) brief on rapid decompression during chamber flights

TABLE 3

DISTRIBUTION OF DUTY TIME SPENT BY MEMBERS OF CAREER LADDER JOBS (RELATIVE PERCENT OF JOB TIME)

### MAIZING AND PLANNING ### ANIZING AND PLANNING ### ANIZING AND CONTROLLING ### BECTING AND CONTROLLING ### PECTING AND CONTROLLING ### PECTING AND CONTROLLING ### PECTING AND CONTROLLING ### ANIZING AND MAINTAINING HYPERBARIC ### ANIZING OR MAINTAINING ARROSPACE ### ANIZING AND MAINTAINING ARROSPACE ### ANIZING OR MAINTAINING	Da.	DUTIES	PHYSIOLOGY TRAINING (N=243)	PRESSURE SUITS (N=55)	SUPERVISORS ADMINISTRATORS (N=50)	HYPERBARIC CHAMBER (N=10)	RESEARCH CHAMBER (N=8)	CENTRIFUGE (N=6)
A DIRECTING AND PLANTING B DIRECTING AND PLANTING C INSPECTING AND CONTROLLING C INSPECTING AND EVALUATING C CONTROLLING C C CONTROLLING C C C C C C C C C C C C C C C C C C C			1 6		17		က	9
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CONDUCTING AEROSPACE PHYSIOLOGY	<u>[s</u>	PERFORMING GENERAL AEROSPACE PHYSIOLOGY FUNCTIONS	7	œ	2	9	6	7
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PERFORMING HIGH ALTITUDE AIRDROP		OPERATING OR MAINTAINING HYPOBARIC	16	9	4	'n	19	ĸ
MISSION SUPPORT (HAAMS) DUTIES * * * CHAMBERS 3 2 30 * CHAMBERS 3 2 30 * CHAMBERS 3 2 30 * PERFORMING LIFE SUPPORT EQUIPMENT, 9 16 2 7 8 FUNCTIONS ON LIFE SUPPORT EQUIPMENT, 9 16 2 7 8 PERFORMING PRESSURE SUIT PHYSIOLOGICAL * 4 4 2 * * SUPPORT FUNCTIONS * 4 4 2 * * * PERFORMING PHYSIOLOGICAL RESEARCH * 4 4 2 *	, H	PERFORMING HIGH ALTITUDE AIRDROP	4	4	-	1		•
CHAMBERS 3 3 2 30 7 8 PERFORMING LIFE SUPPORT EQUIPMENT, FUNCTIONS ON LIFE SUPPORT EQUIPMENT, OTHER THAN PRESSURE SUITS 4 4 4 5 4 4 4 2 *	Η.		k	E	-	ć	4	•
FUNCTIONS ON LIFE SUPPORT EQUIPMENT, OTHER THAN PRESSURE SUITS OTHER THAN PRESSURE SUITS OFERFORMING PRESSURE SUIT PHYSIOLOGICAL SUPPORT FUNCTIONS OPERATING AND MAINTAINING AEROSPACE PHYSIOLOGY EQUIPMENT PERFORMING PHYSIOLOGICAL RESEARCH * * * * 1 32 FUNCTIONS	•	CHAMBERS	က	က	2	30	¢	1
OTHER THAN PRESSURE SUITS PERFORMING PRESSURE SUIT PHYSIOLOGICAL SUPPORT FUNCTIONS OPERATING AND MAINTAINING AEROSPACE PHYSIOLOGY EQUIPMENT PERFORMING PHYSIOLOGICAL RESEARCH * * * * 1 32 FUNCTIONS	×	PERFORMING LIFE SUPPORT EQUIPMENT, FUNCTIONS ON LIFE SUPPORT EQUIPMENT,		`	c	r -	σc	7
PERFORMING PHYSIOLOGICAL RESEARCH * 44 4 4 5 * * SUPPORT FUNCTIONS OPERATING AND MAINTAINING AEROSPACE PHYSIOLOGY EQUIPMENT PERFORMING PHYSIOLOGICAL RESEARCH * 44 4 4 2 * * * * * * PHYSIOLOGY EQUIPMENT PERFORMING PHYSIOLOGICAL RESEARCH * * * 1 32	•	OTHER THAN PRESSURE SUITS	on .	9	7	•	•	•
OPERATING AND MAINTAINING AEROSPACE 9 * * * PHYSIOLOGY EQUIPMENT PERFORMING PHYSIOLOGICAL RESEARCH * * * 1 32 FUNCTIONS	-3	PERFORMING PRESSURE SOLI PRISICESCOLORI SUPPORT FUNCTIONS	*	3	4	7	*	1
PERFORMING PHYSIOLOGICAL RESEARCH * * * 32 FUNCTIONS	E	OPERATING AND MAINTAINING AEROSPACE PHYSIOLOGY EQUIPMENT	6	*	ĸ	*	*	•
	Z	PERFORMING PHYSIOLOGICAL RESEARCH FUNCTIONS	*	*	*	н	32	53

^{*} DENOTES LESS THAN 1 PERCENT - DENOTES 0 PERCENT

TABLE 4

SELECTED BACKGROUND INFORMATION OF MEMBERS IN CAREER LADDER JOBS (PERCENT RESPONDING)

-	PHYSIOLOGY TRAINING	PRESSURE SUITS	SUPERVISORS ADMINISTRATORS	HYPERBARIC CHAMBER	RESEARCH CHAMBER	CENTRIFUGE
NUMBER IN GROUP PERCENT OF SAMPLE PERCENT OVERSEAS	243 61% 10%	55 14% 33%	50 13% 18%	3%	88	22
DAFSC DISTRIBUTION						
91130	32%	18%	•		13%	•
91150	53%	62%	2%	20%	75%	20%
91170	14%	20%	62%	207	12%	33%
91190	*	•	22%	10%	1	17%
91100	•	ŧ	14%	•	•	ı
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	* * * * * * * * * * * * * * * * * * * *		1 1 1 1 1 1	; ; ; ; ;	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;
PAYGRADE DISTRIBUTION						
R-1 TO E-3	37%	42%	•	10%	13%	•
7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	36%	31%	•	10%	20%	17%
جا لا ا	18%	20%	29	207	25%	33%
) (£	77	7%	18%	20%	12%	17%
) (H	1%	•	20%	20%	•	33%
- 00 - 	*	•	14%	•	•	•
6-A	*	•	12%	•	•	•
		; ; ;		1 1 1	1 1 1	1 1 1 1 1
	54%	24%	•	20%	13%	17%
PERCENT SUPERVISING	39%	25%	296	20%	33%	77%
AVERAGE NUMBER OF TASKS PERFORMED		7.1	66	81	53	(4

^{*} DENOTES LESS THAN 1 PERCENT - DENOTES 0 PERCENT

On the basis of survey data, four subgroups exist within the Aerospace Physiology Training job. Members of these subgroups perform the core tasks listed above but differ in the amount of time they spend performing other section-specific tasks within the physiology training unit.

The first subgroup is comprised of 68 E-3 and E-4 personnel who spend most of their time performing only the core hypobaric chamber tasks listed above. A second smaller subgroup appear to be recent technical school graduates in OJT and upgrade training, with a rather limited job. They perform some of the core hypobaric chamber tasks plus some basic chamber maintenance tasks. The 83 members of the third subgroup have a more clearly defined chamber maintenance role. In addition to performing the core chamber operations tasks, they are also involved with chamber inspection and maintenance. The final subgroup of 78 respondents are instructors who are distinguished because they spend more time conducting classroom instruction and briefing various aerospace physiology topics.

II. <u>PRESSURE SUIT PERSONNEL (STG012, N=55)</u>. There are only three bases with pressure suit support units: Beale AFB, Edwards AFB, and RAF Alconbury. AFSC 911X0 personnel assigned to these bases spend 44 percent of their time on pressure suit physiological support duties and 16 percent performing other life support equipment duties. Over half are in their first enlistment and nearly two-thirds hold the 5-skill level. They perform an average of 77 tasks and are distinguished from members working in the other jobs because they spend ...ore time performing the following tasks:

assist crewmembers in donning pressure suit assemblies assist crewmembers in doffing pressure suit assemblies perform preflight or postflight inspections of full pressure suits drive pilot transport vans perform occupied full pressure suit integration tests connect or disconnect crew members to or from aircraft operate portable LOX ventilation units

III. <u>SUPERVISORS AND ADMINISTRATORS</u> (STG026, N=50). This job is performed by the more senior members of the career ladder. Thirty-one hold the 7-skill level, 11 hold the 9-skill level, and 7 have the CEM code. While they have a less technical job in the career ladder, they still participate in hypobaric chamber flights. Three-quarters of their time is allocated to 5 duties: 17 percent to organizing and planning, 17 percent to inspecting and evaluating, 15 percent to directing and controlling, 13 percent to conducting aerospace physiology instruction, and 11 percent to training. They perform an average of 99 tasks, including a mixture of both supervisory and hypobaric chamber tasks and are distinguished by the time they spend on the following tasks:

counsel personnel on personal or military-related problems determine work priorities write APR interpret directives for subordinates evaluate compliance with work performance standards supervise Aerospace Physiology Specialists (AFSC 91150) establish work schedules establish performance standards for subordinates

IV. <u>HYPERBARIC CHAMBER PERSONNEL (STGO27, N=10)</u>. The Air Force has a number of hyperbaric chambers at various stateside and overseas locations. Since hyperbaric functions usually involve patient treatment, more experienced AFSC 911XO personnel perform this job. Half the members hold the 5-skill level and half hold the 7- and 9-skill levels. They spend 30 percent of their duty time operating or maintaining hyperbaric chambers, 18 percent performing administrative functions, and lesser amounts performing life support equipment functions on other than pressure suits, performing general aerospace physiology functions, and operating hypobaric chambers. They perform an average of 81 tasks and are distinguished by the greater time they spend on the following tasks:

serve as an inside observer on hyperbaric chamber dives serve as crew chief on hyperbaric chamber dives serve as chamber operator on hyperbaric chamber dives perform daily inspections of hyperbaric chamber assemblies clean hyperbaric chambers load or unload patients into or from hyperbaric chambers serve as lock operator on hyperbaric chamber dives

V. <u>RESEARCH CHAMBER PERSONNEL (STG032, N=8)</u>. This is a rather specialized job in the aerospace physiology career ladder, limited to the research chambers at Brooks AFB and Wright-Patterson AFB. Research Chamber Personnel are distinguished by the high proportion of their time (32 percent) spent performing physiological research functions. They also spend 19 percent of their time operating hypobaric chambers and 15 percent performing administrative functions. They perform an average of 53 tasks including the following:

serve as crew chief on research chamber flights serve as chamber operator on hypobaric chamber flights serve as crew chief on hypobaric chamber flights serve as inside observer on research chamber flights serve as inside observer on hypobaric chamber flights serve as lock operator on research chamber flights operate doppler ultrasound devices serve as recorder on research chamber flights

VI. <u>CENTRIFUGE PERSONNEL (STG009</u>, <u>N=6</u>). Six AFSC 911X0 personnel work essentially outside their specialty by supporting centrifuge operations at Brooks AFB and Wright-Patterson AFB. Survey data show they are distinguished because they do not take monthly chamber flights and they are the only ones performing the following tasks:

connect personal equipment to centrifuges disconnect personal equipment from centrifuges connect biomedical instrumentation to subjects disconnect biomedical instrumentation from subjects operate strip chart recorders perform pre- and post-run inspections of centrifuges set seat configurations in centrifuges

Comparison to Previous Survey

Jobs identified in the present survey were compared to those reported in the 1980 OSR (see Table 5) and were found to be essentially the same. The slight differences between job titles shown in Table 5 may be attributed to CODAP task clustering and changes in job typing policy. Task clustering identifies groups of tasks which are co-performed which, in turn, helps identify the jobs performed in the career ladder. A job typing policy change allows smaller groups of respondents, who perform only a few distinctive tasks, to be included in larger more descriptive groups. The overall result is that jobs reported reflect actual differences between groups in terms of types of tasks performed.

Summary

The analysis of the six jobs performed by AFSC 911XO personnel accounts for 95 percent of the total sample. The remaining 5 percent either perform such a variety of tasks or have such an unusual emphasis on certain tasks that the CODAP programs could not include them in any groups of meaningful size. The jobs identified above support the current classification structure of the career ladder. While titles are somewhat different than those reported 8 years ago, the jobs and tasks performed have remained stable.

CAREER LADDER PROGRESSION

Analysis of DAFSC groups, together with the analysis of the career ladder structure, is an important part of each occupational survey. The DAFSC analysis identifies differences in tasks performed by members of the various skill level groups which in turn may be used to evaluate how well career ladder documents, such as AFR 39-1 Specialty Descriptions and the Speciality Training Standard (STS), reflect what members of the various skill levels are doing.

TABLE 5

COMPARISON OF CAREER LADDER STRUCTURE FOR CURRENT AND PREVIOUS SURVEY

JOBS IDENTIFIED IN 1988	JOBS IDENTIFIED IN 1980
PHYSIOLOGICAL TRAINING PERSONNEL	AEROSPACE PHYSIOLOGY OPERATIONS AND TRAINING PERSONNEL
	ALTITUDE CHAMBER OPERATIONS SPECIALISTS
SUPERVISORS AND ADMINISTRATORS	AEROSPACE PHYSIOLOGY SUPERVISORS
	ADMINISTRATIVE PERSONNEL
HYPERBARIC CHAMBER PERSONNEL	HYPERBARIC MEDICINE PERSONNEL
PRESSURE SUIT PERSONNEL	LIFE SUPPORT EQUIPMENT PERSONNEL
RESEARCH CHAMBER PERSONNEL	PHYSIOLOGY RESEARCH TECHNICIANS
CENTRIFUGE PERSONNEL	
- NO GROUP IDENTIFIED -	HALO SUPPORT NCOICS
HYPERBARIC CHAMBER PERSONNEL PRESSURE SUIT PERSONNEL RESEARCH CHAMBER PERSONNEL CENTRIFUGE PERSONNEL	AEROSPACE PHYSIOLOGY SUPERVISORS ADMINISTRATIVE PERSONNEL HYPERBARIC MEDICINE PERSONNEL LIFE SUPPORT EQUIPMENT PERSONNEL PHYSIOLOGY RESEARCH TECHNICIANS

The distribution of skill levels across the specialty jobs is displayed in Table 6, while relative time members of the various DAFSC groups spend on duties is shown in Table 7. These data show that members of most DAFSCs are involved in operating and maintaining hyperbaric chambers, conducting aerospace physiology training, and performing general aerospace physiology functions. Although personnel at all skill levels perform tasks within these duties, there is a definite trend for members with higher skill levels to devote more time to supervisory and administrative tasks and less time on routine maintenance and life support types of tasks. Three- and 5-skill level level personnel spend more time on technical duties, 7-skill level members spend more time supervising, and 9-skill level members manage the career ladder.

Skill-Level Descriptions

<u>DAFSC 91130</u>. Personnel with the 3-skill level perform an average of 63 tasks related to the various hypobaric crew positions and chamber maintenance (see Appendix B, Table B1). Because they are inexperienced, their job is rather limited. Data in Table 6 show, while most 3-skill level members work in aerospace physiology training units, some are assigned to pressure suit support units and research chamber sections.

<u>DAFSC 91150</u>. As shown by data in Table 6, 5-skill level members work in nearly all the jobs. Even though they are involved in classroom instruction and work in more specialized jobs, they still perform the core training chamber crew tasks (see Appendix B, Table B2). Tasks that best differentiate between 3- and 5-skill level members are shown in Table 8. The smaller differences in percent performing more basic tasks and larger differences in percentages performing briefing and OJT tasks illustrate that 5-skill level members pick up increased responsibilities as they progress within the career ladder.

<u>DAFSC 91170</u>. Figures in Table 6 show that the role of 7-skill level members is that of first-line supervisor, performing a mixture of technical and supervisory tasks (see Appendix B, Table B3). This role of first-line supervisor is clearly shown by tasks that best differentiate between the skill levels (Table 9). A higher percentage of 7-skill level members perform supervisory tasks and a lower percentage perform technical tasks than 5-skill level members.

<u>DAFSC 91190/00</u>. Three-quarters of the 9-skill level and all the CEM respondents have the supervisor and administrator job. The job description for the combined groups (Appendix B, Table B4) shows, while they are the managers of the career ladder, they are still involved with hypobaric chamber operations to some extent. Their role as administrators and managers is shown by tasks that best differentiate between members of the two groups (see Table 10).

TABLE 6
DISTRIBUTION OF SKILL-LEVEL MEMBERS IN CAREER LADDER JOBS

		DA	FSC		
FUNCTIONS	91130 (N=95)	91150 (N=190)	91170 (N=90)	91190 (N=15)	91100 (N=7)
PHYSIOLOGY TRAINING	82%	68%	38%	13%	-
PRESSURE SUIT	11%	18%	12%	•	-
SUPERVISORS AND ADMINISTRATORS	-	*	34%	73%	100%
HYPERBARIC CHAMBERS	-	3%	4%	7%	-
RESEARCH CHAMBERS	1%	3%	1%	-	-
CENTRIFUGE	-	2%	2%	7%	-
NOT GROUPED	6%	6%	9%	-	-

^{*} Denotes less than 1 percent

⁻ Denotes 0 percent

TABLE 7

DISTRIBUTION OF TIME SPENT ON DUTIES BY MEMBERS OF SKILL LEVEL GROUPS (RELATIVE PERCENT OF JOB TIME)

2	DUTIES	91130 (N=95)	91150 (N=190)	91170 (N=90)	91190/00 (N=22)
. ←	A ORGANIZING AND PLANNING	*		10	17
Ø	DIRECTING AND CONTROLLING	1	က	6	16
ပ	INSPECTING AND EVALUATING	*	7	6	19
Ω	TRAINING	2	7	10	11
ы	PERFORMING ADMINISTRATIVE				
	FUNCTIONS	14	12	11	ဆ
įz,	PERFORMING GENERAL AEROSPACE				
	PHYSIOLOGY FUNCTIONS	6	œ	4	2
G	CONDUCTING AEROSPACE PHYSIOLOGY				
	INSTRUCTION	19	20	16	13
Œ	OPERATING OR MAINTAINING				
	HYPOBARIC CHAMBERS	18	13	7	7
H	PERFORMING HIGH ALTITUDE AIRDROP				
	MISSION SUPPORT (HAAMS) DUTIES	*	*	-	*
ה	OPERATING OR MAINTIANING HYPERBARIC				
	CHAMBERS	4	4	က	2
×	PERFORMING LIFE SUPPORT EQUIPMENT				
	FUNCTIONS ON LIFE SUPPORT EQUIPMENT,				
	OTHER THAN PRESSURE SUITS	13	6	9	2
ı	PERFORMING PRESSURE SUIT PHYSIOLOGICAL				
	SUPPORT FUNCTIONS	5	6	9	*
Œ	OPERATING AND MAINTAINING AEROSPACE				
	Physiology equipment	10	9	4	က
Z	PERFORMING PHYSIOLOGICAL RESEARCH				
	FUNCTIONS	*	က	7	

^{*} DENOTES LESS THAN 1 PERCENT - DENOTES 0 PERCENT

TABLE 8

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 91150 PERSONNEL (PERCENT MEMBERS PERFORMING)

TASKS		91130 (N=95)	91150 (N=190)	DIFFERENCE
E117	MAKE ENTRIES ON AF FORMS 699 (PHYSIOLOGICAL TRAINING	58	39	19
	SCORE TESTS	47	29	18
F156	CUT GRASS, TRIM SHRUBBERY, POLICE SQUADRON AREAS, OR	75	57	18
7153	CLEAN AEPOSPACE PHYSIOLOGY TRAINING AIDS AND EQUIPMENT	79	61	18
X401	OPERATE SPATIAL DISORIENTATION TRAINERS	79	47	17
E119	MAKE ENTRIES ON AF FORMS 701 (CHAMBER FLIGHT RECORD)	76	09	16
64.0	WOTTR APP	2	35	-33
	RETER ON PREFIGHT PROCEDURES OF CHAMBER FLIGHTS	28	61	-33
	RETER ON POSTFLIGHT PROCEDURES OF CHAMBER FLIGHTS	32	63	-31
	CONDUCT OUT	13	77	-29
06	MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB			
)	TRAINING RECORD)	4	32	-28
D 83	EVALUATE CLASSROOM PRESENTATION OF INSTRUCTORS	9	34	-28
6179	BRIEF ON USE OF EMERGENCY AND PORTABLE OXYGEN SYSTEMS DURING HYPOBARIC CHAMBER FLIGHTS	38	79	-26

TABLE 9

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 91170 PERSONNEL (PERCENT MEMBERS PERFORMING)

		91150	91170	
TASKS		(N=190)	(N=90)	DIFFERENCE
•]	
F153	CLEAN AEROSPACE PHYSIOLOGY TRAINING AIDS AND			
	EQUIPMENT	62	32	30
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	78	67	29
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	81	55	26
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN			
	CYLINDERS	7.7	24	23
A 7	DETERMINE WORK DRICKTIES	34	78	
A 11	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	26	76	5.50
A 12	ESTABLISH WORK SCHEDULES	25	74	67-
B 26	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED			
	PROBLEMS	30	79	67-
C 63	WRITE AWARDS AND DECORATIONS RECOMMENDATIONS	16	79	-48

TABLE 10

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC 91199/00 PERSONNEL (PERCENT MEMBERS PERFORMING)

		91170	91199/00	
TASKS		(06=N)	(N=22)	DIFFERENCE
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!		, , ,		
D 90	MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB			
	TRAINING RECORD)	74	36	38
H246	STORE HIGH PRESSURE OXYGEN CYLINDERS	77	13	31
D 89	MAKE ENTRIES ON AF FORMS 1098 (SPECIAL TASK			
	CERTIFICATION AND RECURRING TRAINING)	52	23	29
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	26	27	29
K281	CLEAN STUDENT AND CREWMEMBER FLIGHT HELMETS	32	4	28
L332	ASSIST CREWMEMBERS IN DOFFING PRESSURE SUIT			
	_	27	•	27
B 33	B 33 INITIATE REQUESTS FOR PERSONNEL REPLACEMENTS	14	82	-68
C 48	EVALUATE INSPECTION REPORT FINDINGS	39	100	-61
B 28	IMPLEMENT COST-REDUCTION PROGRAMS	20	77	-57
A. 3	ASSIGN SPONSORS FOR NEWLY ASSIGNED PERSONNEL	32	86	-54
C 45	EVALUATE BUDGET REQUIREMENTS	33	86	-53
A 10	ESTABLISH ORGANIZATIONAL POLICIES	34	98	-52

- Denotes 0 percent

Summary

Aerospace Physiology personnel progress typically through the skill levels. Three- and 5-skill level members perform the more technical tasks, 7-skill level members are first-line supervisors, and the 9-skill level and CEM personnel are the managers of the career ladder.

AFR 39-1 SPECIALTY JOB DESCRIPTION ANALYSIS

The current AFR 39-1 Specialty Descriptions for the AFSC 911X0 career ladder were compared to job descriptions for each job identified and for each DAFSC group. Overall, survey data support the current AFR 39-1 Specialty Descriptions.

TRAINING ANALYSIS

Occupational survey data are a valuable source of information which can be used to evaluate the training documents for the specialty. The three most commonly used types of data are: (1) percent of first-enlistment personnel performing tasks, (2) ratings of how much training emphasis tasks should receive, and (3) ratings of the relative difficulty of tasks. These data were used to review the Specialty Training Standard for the Aerospace Physiology career ladder. The POI for the basic course was not reviewed during this study because it was being revised when this report was written, and nearly all learning objectives require knowledge rather than performance, which precludes matching to performance-oriented tasks in the job inventory.

Secondary factors (TE and TD) may be used in conjunction with percent members performing figures to determine what tasks should be emphasized in entry-level training. Tasks with high TE and TD ratings which are performed by moderate to high percentages of first-enlistment personnel are normally taught in resident courses, while tasks with high TE and TD ratings and low percentages of first-enlistment personnel performing may be more appropriate for OJT. Tasks rated low in TE and TD generally are not included in any formal training unless their inclusion can be justified by percent members performing, command concerns, or criticality. Products in the Training Extract contain several listings of tasks with accompanying TE and TD ratings and percent members performing figures. Training Development Services personnel will find these listings extremely helpful in reviewing training requirements for the 911XO career ladder.

Table 11 lists tasks with the highest TE ratings, with accompanying first job (1-24 months TAFMS), first enlistment (1-48 month TAFMS), and TD ratings shown. All these tasks deal with some aspect of the basic physiological training function--classroom instruction or chamber operations.

TABLE 11

TASKS WITH HIGHEST TE RATING

PERCENT MEMBERS PERFORMING

		Į.	1-24 TATE	1-48	4
TASKS		EMP	(N=105)	(N=180)	DIF
		!		1 8 8 1 6 1	1 1
G221	CHAMBER REACTORS FOR	7.56	75	78	4.82
G222	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	7.56	73	78	4.95
G224	TREAT CHAMBER REACTORS WITH EVOLVED GAS DISORDERS	7.48	83	53	5.85
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT				
	PROBLEMS	7.38	63	69	4.59
G223	TREAT CHAMBER REACTORS FOR TOOTH PROBLEMS	7.36	26	63	4.88
H242	AS INSIDE OF	7.26	90	90	5.22
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	7.26	87	87	4.43
H240	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	7.20	98	86	4.45
E119	MAKE ENTRIES ON AF FORMS 701 (CHAMBER FLIGHT RECORD)	7.12	65	69	3.79
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	7.12	85	85	79.7
H244	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	7.12	83	84	4.45
E117	MAKE ENTRIES ON AF FORMS 699 (PHYSIOLOGICAL TRAINING				
E117	RECORD)	6.62	20	20	3.45
G177	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS	6.56	63	69	4.80
G194	CONDUCT CLASSROOM INSTRUCTION ON USE OF OXYGEN MASKS	9.44	20	37	5.29
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS	97.9	72	9/	4.01
G119	BRIEF ON USE OF EMERGENCY AND PORTABLE OXYGEN SYSTEMS				
	DURING HYPOBARIC CHAMBER FLIGHTS	6.42	27	45	4.94
E120	MAKE ENTRIES ON AF FORMS 702 (INDIVIDUAL PHYSIOLOGICAL				
		6.40	32	36	3.05
G195	CONDUCT CLADSROOM INSTRUCTION ON USE OF OXYGEN REGULATORS	6.34	20	37	5.29
H226	PECTIONS OF	6.28	36	38	4.59
E118	MAKE ENTRIES ON AF FORMS 700 (PHYSIOLOGICAL TRAINING				
		6.20	54	28	5.12
E121	MAKE ENTRIES ON AF FORMS 712 (INSTRUCTOR'S FLIGHT/DIVE				
	RECORD)	6.20	32	33	3.17

TE MEAN = 2.10 S.D. = 1.79 TD MEAN = 5.00 S.D. = 1.00

Tasks rated highest in task difficulty are listed in Table 12. Almost half deal with overhauling pressure suits, while most of the rest are performed only be career ladder managers.

The Training Extract contains a listing of the STS, the tasks matched to STS elements, percent first-enlistment personnel performing the tasks, and TE and TD ratings for matched tasks. Copies of the Extract have been forwarded to technical school personnel for their use in reviewing training documents for the career ladder. A summary of that information is presented below.

First-Enlistment Aerospace Physiology Personnel

One hundred and eighty survey respondents indicated they are in their first enlistment. Figure 2 shows 72 percent (130 persons) have the Physiology Training job and 17 percent (30 individuals) work with pressure suits. Smaller numbers work with the hyperbaric and research chambers and centrifuge operations. Representative tasks performed, listed in Table 13, confirm that Physiology Training is the major job of first-enlistment AFSC 911X0 personnel.

Specialty Training Standard (STS)

To aid in the review of STS 911X0, Aerospace Physiology, dated September 1988, training personnel at Brooks AFB matched job inventory tasks to appropriate STS line items. This matching was then used to produce a complete listing of the STS with tasks matched to elements, percent members performing the tasks, and TE and TD ratings for each matched task. The relevance of each matched STS element was then determined using these data and guidelines found in ATCR 52-22.

The STS for this career ladder is rather short, with most individual line items dealing with general knowledge about Aerospace Physiology subjects. Specific performance of chamber maintenance, pressure suits, hyperbaric chamber operations, physiological training devices, and research functions are not included on the STS because these activities are quite specialized, learned by OJT, and are usually performed by small numbers of AFSC 911X0 personnel. In addition, proficiency in some of these activities is documented on Job Qualification Standard Continuations (AF Forms 797) developed by individual units.

Overall, the AFSC 911X0 STS is fairly well supported by survey data. Only two elements are matched to tasks performed by less than 20 percent of first-job, first-enlistment, 5- or 7-skill level members, which suggests they should be deleted from the STS. One deals with protective helmets and the other involves pressure suit principles. These two elements, with matched tasks and performance data, are listed in Table 14.

Functional personnel need to consider removing paragraph 18 - Pressure Suits - from the STS. Pressure suit functions are taught by OJT at the bases involved, personnel working with them receive a Special Experience Identifier (SEI), and proficiency is documented by a Job Qualification Standard (JQS).

TABLE 12

TASKS WITH HIGHEST TD RATING

PERCENT MEMBERS PERFORMING

			1 1 1 1 1 1 1	: : : : : : : : : : : : : : : : : : : :	
TASKS		TSK	1-24 TAFMS (N=105)	1-48 TAFMS (N=180)	ING
A 1	ACT AS PROGRAM ADVISOR AT MAJOR COMMAND LEVEL	8.17		-	.08
C 64	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	7.74	0	7	.58
N458	THING GASES	7.60	0	,	77.
C 63	WRITE AWARDS AND DECORATIONS RECOMMENDATIONS	7.47	0	7	1.24
L387	SEW PRESSURE SUIT ASSEMBLIES	7.30	7	ന	. 88
·	PERFORM OVERHAUL INSPECTIONS OF PARTIAL PRESSURE SUITS	7.17	7	7	1.06
A 9	DRAFT BUDGET REQUIREMENTS	7.13		4	.52
L342	ISOLATE FULL PRESSURE SUIT MALFUNCTIONS	7.11	11	11	1.40
L344	ISOLATE PARTIAL PRESSURE SUIT MALFUNCTIONS	7.08	7	2	99.
L355	PERFORM OVERHAUL INSPECTIONS OF FULL PRESSURE SUITS	7.04	11	11	1.54
09 ၁	PERFORM STAFF ASSISTANCE VISITS	6.99	0		.02
A 10	ESTABLISH ORGANIZATIONAL POLICIES	6.98	7	2	. 22
D 79	DEVELOP CAREER DEVELOPMENT COURSE (CDC) MATERIALS	6.95	0	1	. 18
L358	PERFORM OVERHAUL INSPECTIONS OF PRESSURE SUIT CONTROLLERS	6.94	'n	9	1.48
L389	SIZE AND FIT PARTIAL PRESSURE SUITS	6.93	0	-	74.
L392	TEST AND EVALUATE NEW OR PROPOSED PRESSURE SUIT	6.93	0	7	79.
	ASSEMBLIES				
A 14	PLAN FACILITY LAYOUTS	6.92	0		. 16
C 45	EVALUATE BUDGET REQUIREMENTS	6.84	,	က	.30
L359	PERFORM OVERHAUL INSPECTIONS OF PRESSURE SUIT OXYGEN	6.79	೮	4	1.48
	REGULATORS		-		
C 62	WRITE APR	6.78	0	\$	2.74
N485	PERFORM PLUMBING MODIFICATIONS TO SEALED ENVIRONMENTAL	6.76	0	-	.54
		,	ı	,	,
1335	_	6.70	Ŋ	•	1.22
L331		6.70	10	11	1.60
1	VALVES				
L346	ໝ	99.9	4	7	1.46
L388	PRESSURE SI	99.9	2	4	1.12
L334	CALIBRATE PRESSURE SUIT TEST EQUIPMENT	6.62	4	9	. 84
D 80		6.62	2	7	. 78
L356	PERFORM OVERHAUL INSPECTIONS OF LOW FLIGHT OXYGEN	6.58	က	4	1.28
	KEGULATURS				

FIRST ENLISTMENT AFSC 911X0 IN CAREER LADDER JOBS

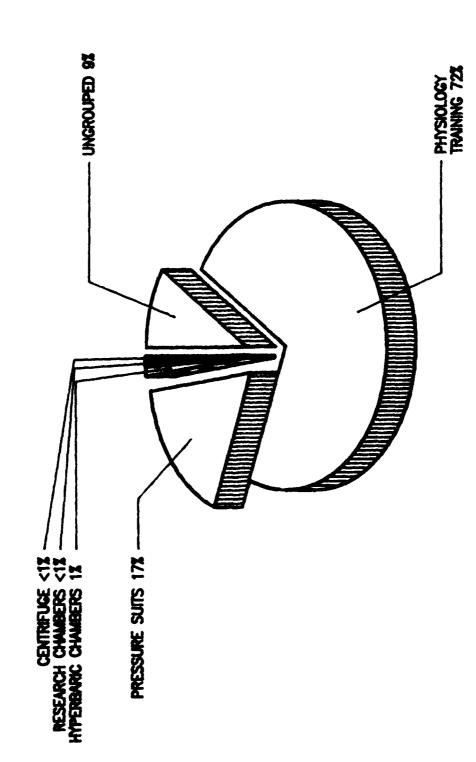


FIGURE 2

TABLE 13

REPRESENTATIVE TASKS PERFORMED BY FIRST-ENLISTMENT AFSC 911X0 PERSONNEL

TASKS		MEMBERS PERFORMING (N=180)
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMPER FLIGHTS	90
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	87
H240	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	86
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	85
H244	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	84
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	78
G222	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	78
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS	76
	CLEAN AEROSPACE PHYSIOLOGY TRAINING AIDS AND EQUIPMENT	73
E119	MAKE ENTRIES ON AF FORMS 701 (CHAMBER FLIGHT RECORD)	69
G177	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS	69
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT	
	PROBLEMS	69
	STORE HIGH PRESSURE OXYGEN CYLINDERS	66
G223	TREAT CHAMBER REACTORS FOR TOOTH PROBLEMS	63
G180	BRIEF ON USE OF SPATIAL DISORIENTATION TRAINERS	
	(VERTIGON)	61
	RECHARGE PORTABLE OXYGEN ASSEMBLIES	57
	OPERATE SPATIAL DISORIENTATION TRAINERS	5 6
	CONDUCT TOURS OF AEROSPACE PHYSIOLOGY FACILITIES	56
	TREAT CHAMBER REACTORS WITH EVOLVED GAS DISORDERS	53
F157	DRIVE GOVERNMENT VEHICLES, OTHER THAN PILOT TRANSPORT	
	VANS	52
E117		
	RECORD)	50
	FIT STUDENT AND PATIENT OXYGEN MASKS	47
K288	FIT STUDENT AND CREWMEMBER FLIGHT HELMETS	47
G179		
	DURING HYPOBARIC CHAMBER FLIGHTS	45
D 95	SCHEDULE STUDENTS FOR AEROSPACE PHYSIOLOGY TRAINING	
	CLASSES	43

TABLE 14

UNSUPPORTED AFSC 911X0 STS ELEMENTS

		PE	PERCENT MEMBERS PERFORMING	ERS G	
STS ELEMENT AND MATCHED TASKS	TNG	1-48 TAFMS (N=180)	1-48 TAFMS 91150 9 (N=180) (N=190) (91170 (N=90)	TSK DIFF
! !	!	1	# 1 1 2 1 1		; ! ! !
K316 REMOVE OR REPLACE STUDENT AND CREWMEMBER FLIGHT HELMET COMPONENTS, OTHER THAN INTERCOMMUNICATIONS SYSTEMS	3.50	19	18	16	4.26
G186 CONDUCT CLASSROOM INSTRUCTION ON PRESSURE SUIT PRINCIPLES	1.60	-	က	6	6.27
TE MEAN = 2.10 S.D. = 1.79 TD MEAN = 5.00 S.D. = 1.00					

-Denotes 0 percent

While most STS elements are supported, there are a number of tasks, performed by fairly high percentages of TAFMS and DAFSC group members, not matched to any STS elements. A sample of these unmatched tasks is presented Several deal with inspecting and performing maintenance on in Table 15. hypobaric chambers. STS paragraph 11, Training Equipment Maintenance, could be expanded to include these types of tasks. STS paragraph 13, Hyperbaric Chamber Operations, could also be expanded as there are several tasks dealing with hyperbaric chamber operations performed by more than 20 percent of firstjob, first-enlistment, 5- or 7-skill level members. In addition, hyperbaric chamber training will be part on the revised POI for the basic course. And finally, percentages of respondents performing parachute training and egress tasks suggest these tasks should be included in the STS. Functional and school personnel need to review all unmatched tasks to determine if they belong in the STS.

The final step of the STS analysis was to review the 3-skill level training codes assigned to the supported elements. Following guidelines stated in AFR 8-13 and ATCR 55-22, performance training codes for supported elements are appropriate if matched tasks are performed by 30 percent or more of first-enlistment airmen. Elements matched to tasks performed by less than 30 percent are normally dashed (-), unless there is good justification for them to be taught to a performance level.

Nearly all technical elements of the STS are supported and have a task knowledge code assigned. Since they are matched to tasks performed by more than 30 percent of members of the criterion groups, the task performance codes assigned are appropriate. Functional and school personnel need to review the codes assigned to all STS elements to determine if some topics might be taught to the performance level rather than task knowledge level.

Summary

Nearly all technical STS elements are supported by survey data. Since more than 30 percent members of criterion groups perform matched tasks, 3-skill level training codes assigned to most technical element need to be changed from a knowledge to a performance level. There are also a number of unmatched tasks which suggest topics that would be appropriate for the STS.

JOB SATISFACTION

Respondents were asked to indicate how interested they are in their jobs, if they feel their talents and training are being used, and if they intend to reenlist. Satisfaction indicators for TAFMS groups in the present study were compared to those of members in related AFSCs surveyed in 1987. As shown in Table 16, indicators are quite similar for Aerospace Physiology personnel and

TABLE 15

SAMPLE OF TASKS NOT MATCHED TO AFSC 911X0 STS

PERCENT MEMBERS PERFORMING

			1-48			
		TNG	TAFMS	91150	91170	TSK
TASKS		EMP	(N=180)	(N=190)	(N=90)	DIFF
H226	OF HYPOBARIC	6.28	38	39	27	4.59
H227	PERFORM GENERAL MAINTENANCE ON HYPOBARIC CHAMBERS	6.10	37	38	28	5.16
H246	STORE HIGH PRESSURE OXYGEN CYLINDERS	5.86	99	9	77	3.87
H231	PERFORM PERIODIC INSPECTIONS OF HYPOBARIC CHAMBER					
	ASSEMBLIES	5.58	29	33	77	5.18
H236	REMOVE OR REPLACE HYPOBARIC CHAMBER OXYGEN PLUMBING,					
	SUCH AS TUBING OR FITTINGS	5.38	19	25	21	5.69
H232	PERFORM SPECIAL INSPECTIONS OF HYPOBARIC CHAMBER				i	
	ASSEMBLIES	5.34	27	28	23	5.34
J269	SERVE AS CHAMBER OPERATOR ON HYPERBARIC CHAMBER DIVES	3.00	31	28	34	5.43
3271	SERVE AS INSIDE OBSERVER ON HYPERBARIC CHAMBER DIVES	3.00	29	29	39	5.44
3273	SERVE AS RECORDER ON HYPERBARIC CHAMBER DIVES	2.98	28	28	34	5.32
3274	SERVE AS TIMEKEEPER ON HYPERBARIC CHAMBER DIVES	2.98	28	28	33	5.66
J270	SERVE AS CREW CHIEF ON HYPERBARIC CHAMBER DIVES	2.92	29	27	32	5.27
3272	SERVE AS LOCK OPERATOR ON HYPERBARIC CHAMBER DIVES	2.90	29	27	34	5.00
M393	DEMONSTRATE PARACHUTE LANDING FALLS (PLF) DURING PARASAIL					
	TOW-DOWNS	2.86	27	20	14	4.91
M394	DEMONSTRATE PLF DURING PARASAIL RELEASES	2.72	28	20	12	5.22
M397	OPERATE AIR EGRESS PROCEDURAL TRAINERS	2.62	25	20	16	4.39
M398	OPERATE GROUND EGRESS PROCEDURAL TRAINERS	2.58	5 6	20	14	3.79

TE MEAN = 2.10 S.D. = 1.79 TD MEAN = 5.00 S.D. = 1.00

TABLE 16

JOB SATISFACTION INDICATORS OF TAFMS GROUPS IN CURRENT STUDY AND COMPARATIVE SAMPLE (PERCENT MEMBERS RESPONDING)

	1-48 M	1-48 MOS TAFMS)W 96-67	49-96 MOS TAFMS	97+ MOS	97+ MOS TAFMS
EXPRESSED JOB INTEREST:	911X0 (N=180)	COMP SAMPLE (N=618)	911X0 (N=88)	COMP SAMPLE (N=181)	911X0 (N=129)	COMP SAMPLE (N=375)
INTERESTING SO-SO DULL	84 10 6	86 9 4	888	78 14 5	82 10 6	76 15 7
PERCEIVED USE OF TALENTS: FAIRLY WELL TO GOOD LITTLE OR NOT AT ALL	85 14	87 12	84	84 16	82	81 18
PERCEIVED USE OF TRAINING: FAIRLY WELL TO GOOD LITTLE OR NOT AT ALL	89 11	06	83	83 16	78	82 18
REENLISTMENT INTENTIONS: WILL REENLIST WILL NOT REENLIST WILL RETIRE	65 0*	98 *	82 18	67 31	73 8 19	70 9 19

NOTE: RELATED AFSCS SURVEYED IN 1987: 902X2 (SURGICAL 912X5/A (OPTOMETR

902X2 (SURGICAL SERVICES) 912X5/A (OPTOMETRY) 919X0 (ORTHOTIC)

* Denotes less than 1 percent - Denotes 0 percent

airmen in the other medical career ladders surveyed in 1987. More second-enlistment and career AFSC 911XO airmen find their jobs interesting than their counterparts in the comparative AFSCs. Reenlistment intentions, however, are quite similar for airmen in the current survey and medical AFSCs surveyed in 1987.

Satisfaction indicators for TAFMS groups in the present study were also compared to figures reported in the 1980 OSR (Table 17). Overall, job satisfaction has remained quite stable over the last 8 years.

And finally, satisfaction indicators for members of the six jobs are shown in Table 18. Most members in each of the jobs find their work interesting; however, low percentages of AFSC 911XO airmen working with the centrifuge, pressure suits, and research chambers feel their training is being used. This latter condition is understandable, as entry-level training prepares AFSC 9113O airmen to work primarily in physiology training sections, not in the small specialty jobs. Note that even though members of these three jobs do not feel their training is used, they do feel their talents are used.

Summary

Job satisfaction indicators for members of most jobs are satisfactory. Airmen working with the centrifuge, pressure suits, and research chambers feel their training is not being used, which is understandable. Overall indicators are similar to those reported for other medical AFSCs surveyed last year, and have remained stable over the last 8 years.

OTHER ANALYSES

CONUS/Overseas Differences

Survey data show there are some differences in what AFSC 91150 airmen assigned overseas do as compared to their stateside counterparts. As shown by the job descriptions for the two groups (Tables 19 and 20) and the tasks which best differentiate between the groups (Table 21), the overseas group is more involved with pressure suit and aircraft functions while stateside members are more involved with hypobaric chamber operations. The implication for training is minimal, however, considering there are 27 AFSC 91150 airmen assigned overseas compared to 156 stationed CONUS.

MAJCOM Comparison

Tasks performed by personnel in the nine major commands (MAJCOM) with the largest AFSC 911XO populations were compared to determine if job content varies as a function of MAJCOM assignment. Although a number of hypobaric chamber operation tasks are common to all MAJCOMs, a few variations were noted. SAC personnel differ from airmen in the other MAJCOMs in that they

TABLE 17

COMPARISON OF JOB SATISFACTION INDICATORS FOR AFSC 911X0 TAFMS GROUPS IN CURRENT AND PREVIOUS STUDY (PERCENT MEMBERS RESPONDING)

	1-48 MO	1-48 MOS TAFMS	96-67	49-96 MOS TAFMS	97+ MO	97+ MOS TAFMS
EXPRESSED JOB INTEREST:	1988 (N=180)	1980 (N=130)	1988 (N=88)	1980 (N=58)		
INTERESTING SO-SO DULL	84 10 6	70 18 12	89 7 3	72 19 9	82 10 6	86 80 80
PERCEIVED USE OF TALENTS: FAIRLY WELL TO GOOD LITTLE OR NOT AT ALL	81 19	33	84	83 17	82 18	88 12
PERCEIVED USE OF TRAINING: FAIRLY WELL TO GOOD LITTLE OR NOT AT ALL	85 14	80	83	88 12	78	85 15
REENLISTMENT INTENTIONS: WILL REENLIST WILL NOT REENLIST WILL RETIRE	65 04 *	39 24 35	18	69 17 14	73 8 19	59 14 26

⁻ Denotes 0 percent * Denotes less than 1 percent

TABLE 18

COMPARISON OF JOB SATISFACTION INDICATORS FOR MEMBERS OF CAREER LADDER JOBS (PERCENT MEMBERS RESPONDING)

EVDDECED TOR INTEREST.	PHYSIOLOGY TRAINING (N=243)	PRESSURE SUITS (N=55)	SUPERVISORS ADMINISTRATORS (N=50)	HYPERBARIC CHAMBER (N=10)	RESEARCH CHAMBER (N=8)	CENTRIFUGE (N=6)
INTERESTING SO-SO DULL	. 87	80	80 10	90	88 - 12	100
PERCEIVED USE OF TALENTS:	87 13	67 33	80 20	100	62 37	83 17
PERCEIVED USE OF TRAINING: FAIRLY WELL TO GOOD LITTLE OR NOT AT ALL	96 9	47 53	7.5 24	100	37 62	50 50
REENLISTMENT INTENTIONS: WILL REENLIST WILL NOT REENLIST WILL RETIRE	69 30 1	73 24 3	66 2 32	80 - -	62 25	50 17 33

- DENOTES 0 PERCENT

TABLE 19

REPRESENTATIVE TASKS PERFORMED BY AFSC 91150 PERSONNEL ASSIGNED TO CONUS BASES

TASKS		MEMBERS PERFORMIN (N=156)
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER FLIGHTS	90
H240	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	85
H244	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	85
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	85
H241	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	83
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	83
G222	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	83
H225	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS	78
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT	
	PROBLEMS	75
	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS	74
G179	BRIEF ON USE OF EMERGENCY AND PORTABLE OXYGEN SYSTEMS	
G223		69
	DURING HYPOBARIC CHAMBER FLIGHTS	67
F155		66
G174	BRIEF ON POSTFLIGHT PROCEDURES OF CHAMBER FLIGHTS BRIEF ON PREFLIGHT PROCEDURES OF CHAMBER FLIGHTS	65
G176	BRIEF ON PREFLIGHT PROCEDURES OF CHAMBER FLIGHTS	63
H246		63
	CLEAN AEROSPACE PHYSIOLOGY TRAINING AIDS AND EQUIPMENT	
	MAKE ENTRIES ON AF FORMS 701 (CHAMBER FLIGHT RECORD)	60
G175	BRIEF ON PREFLIGHT OXYGEN EQUIPMENT INSPECTION PROCEDURE	
	PRIOR TO HYPOBARIC CHAMBER FLIGHTS	60
G180		
	(VERTIGON)	59
G215	INSTRUCT PROCEDURES FOR TREATING HYPERVENTILATION INSTRUCT PROCEDURES FOR TREATING HYPOXIA	58
	RECHARGE PORTABLE OXYGEN ASSEMBLIES	56
G224	TREAT CHAMBER REACTORS WITH EVOLVED GAS DISORDERS	56

TABLE 20

REPRESENTATIVE TASKS PERFORMED BY AFSC 91150 PERSONNEL ASSIGEND TO OVERSEAS BASES

TASKS		MEMBERS PERFORMING (N=27)
	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER FLIGHTS	74
F158	INSPECT OXYGEN EQUIPMENT ITEMS IN AIRCRAFT FOR OPERATIONAL CONDITION	67
H225		07
11223	CYLINDERS	67
F155	CONDUCT TOURS OF AEROSPACE PHYSIOLOGY FACILITIES	67
E119	MAKE ENTRIES ON AF FORMS 701 (CHAMBER FLIGHT RECORD)	63
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	63
H240	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	59
L339	DRIVE PILOT TRANSPORT VANS	59
L332	ASSIST CREWMEMBERS IN DOFFING PRESSURE SUIT	
	ASSEMBLIES	59
L353	PERFORM OCCUPIED FULL PRESSURE SUIT INTEGRATION	
	TESTS	59
	CLEAN AEROSPACE PHYSIOLOGY TRAINING AIDS AND EQUIPMENT	
F157	DRIVE GOVERNMENT VEHICLES, OTHER THAN PILOT TRANSPORT	
	VANS	59
H246	STORE HIGH PRESSURE OXYGEN CYLINDERS LOAD OR UNLOAD LIFE SUPPORT EQUIPMENT, SUCH AS	59
K296	LOAD OR UNLOAD LIFE SUPPORT EQUIPMENT, SUCH AS	
	SURVIVAL KITS OR PARACHUTES, FROM AIRCRAFT	56
L333	SURVIVAL KITS OR PARACHUTES, FROM AIRCRAFT ASSIST CREWMEMBERS IN DONNING PRESSURE SUIT ASSEMBLIES OPERATE PORTABLE LOX VENTILATION UNITS	
	ASSEMBLIES	56 56
L351	OPERATE PORTABLE LOX VENTILATION UNITS PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF	56
L3/1	PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF	56
	LOW FLIGHT OXYGEN REGULATORS FILL PORTABLE LIQUID OXYGEN (LOX) VENTILIATION	30
L340	UNITS UNITS	56
V 2 9 1	CLEAN STUDENT AND CREWMEMBER FLIGHT HELMETS	56
N201	CERM STODERT AND CREWHENDER PLICHT HELHELD	56
0277 0221	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	56
L370	PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF	30
L370	FULL PRESSURE SUITS	52
T.374	PERFORM PREFLIGHT PHYSICAL EXAMINATIONS	52
L373		
5 3,3	LOX VENTILATION UNITS	_ 52
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	52
G222	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	52
L337		- -
·	AIRCRAFT SYSTEMS	48

TABLE 21

EXAMPLES OF TASKS WHICH BEST DIFFERENTIATE BETWEEN DAFSC AFSC 91150 PERSONNEL STATIONED CONUS AND OVERSEAS (PERCENT MEMBERS PERFORMING)

TASKS		CONUS (N=156)	OVERSEAS (N=27)	DIFFERENCE
G222 H241 G220 G177 H244	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	83 83 75 74 85	52 44 44 56	31 31 30 29
L371 L353	PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF LOW FLIGHT OXYGEN REGULATORS PERFORM OCCUPIED FULL PRESSURE SUIT INTEGRATION TESTS	8 12	56 59	-48
F158 L332 L373	INSPECT OXYGEN EQUIPMENT ITEMS IN AIRCRAFT FOR OPERATIONAL CONDITION ASSIST CREWMEMBERS IN DOFFING PRESSURE SUIT ASSEMBLIES PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF PORTABLE LOX VENTILATION UNITS	20 13 6	67 59 52	74- 74- 74-

spend the largest percentage of their duty time performing tasks related to pressure suits and life support equipment. AFSC 911XO airmen assigned to ATC spend more duty time than members of other MAJCOMs operating and maintaining aerospace physiology equipment, such as parasail, swing landing, and egress trainers.

In summary, there are some minor variations in the jobs performed by personnel in the MAJCOM groups. These variations reflect slight differences in the missions of the various MAJCOMs. Even with the exceptions noted above, most AFSC 911XO personnel perform a job that is very similar, primarily that of preparing individuals for hypobaric chamber flights and operating the chambers.

Overlap with AFSC 122XO, Aircrew Life Support

Functional managers expressed a concern that AFSC 911X0 personnel working with pressure suits are doing the same job as AFSC 122X0, Aircrew Life Support, personnel working with pressure suits. The job description for AFSC 911X0 Pressure Suit Personnel was compared to both the 1988 AFR 39-1 Specialty Description for AFSC 122X0 personnel and 1984 OSR job description for AFSC 122X0 personnel working in the Pressure Suit and Physiological Support Section. These comparisons show there are only nine AFSC 122X0 personnel working with pressure suits and that they do more actual maintenance, overhauling, and repairing the suits. There are 55 AFSC 911X0 personnel identified as working with the suits and they are more involved with assisting crewmembers with the suits. This relationship is shown by figures presented in Table 22. Unless there has been an increase in the number of AFSC 122X0 personnel working with pressure suits in the last 4 years, the concern of sizeable overlap between the two specialties is not supported.

Number of flights, dives, and days DNIF

Functional personnel are also interested in knowing the number of hypobaric flights and hyperbaric dives Aerospace Physiology personnel indicate they take, as well as the number of days they are on Duty Not Including Flying status. Table 23 shows how members of the various jobs, TAFMS groups, and MAJCOM groupings responded to the background questions dealing with these issues. As expected, Physiological Training and Research Chamber Personnel take the most flights, while Hyperbaric Chamber Personnel make the most dives. There are some slight differences in the number of flights and dives members of the various MAJCOMs take, which appear to reflect differences in MAJCOM missions. Functional personnel are directed to Table 23 for answers to particular questions on how AFSC 911X0 personnel are being used.

TABLE 22

TASKS PERFORMED BY BOTH AFSC 911X0 AND 122X0 PERSONNEL WORKING WITH PRESSURE SUITS

	PERCENT	PERCENT
	911X0	122X0
	MEMBERS	
	PERFORMING	
	(N=55)	
ASSIST CREWMEMBERS IN DONNING PRESSURE SUIT ASSEMBLIES		56
ASSIST CREWMEMBERS IN DOFFING PRESSURE SUIT ASSEMBLIES		67
PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF FULL		
PRESSURE SUITS	89	100
DRIVE PILOT TRANSPORT VANS	89	67
PERFORM OCCUPIED FULL PRESSURE SUIT INTEGRATION TESTS	87	67
CONNECT OR DISCONNECT CREW MEMBERS TO OR FROM AIRCRAFT	84	67
OPERATE PORTABLE LOX VENTILATION UNITS	84	5 6
FILL PORTABLE LIQUID OXYGEN (LOX) VENTILIATION UNITS	82	5 6
REMOVE OR REPLACE FULL PRESSURE SUIT COMPONENTS	76	100
CLEAN PRESSURE SUITS	73	89
ISOLATE FULL PRESSURE SUIT MALFUNCTIONS	71	67
PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF LOW FLIGHT		
OXYGEN REGULATORS	65	67
PERFORM PREFLIGHT PHYSICAL EXAMINATIONS	65	67
PREPARE PRESSURE SUIT ASSEMBLIES FOR SHIPMENT	65	100
SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	64	5 6
DISASSEMBLE PRESSURE SUIT HARDWARE, SUCH AS NECK RINGS OR		
URINE COLLECTION VALVES	60	100
ASSEMBLE PRESSURE SUIT HARDWARE, SUCH AS NECK RINGS OR		
URINE COLLECTION VALVES	60	100

TABLE 23

HOW MEMBERS OF VARIOUS GROUPS RESPONDED TO BACKGROUND QUESTIONS

	BA	BACKGROUND QUESTIONS	
	AVERAGE NUMBER OF FLIGHTS PER MONTH	AVERAGE NUMBER OF DIVES PER MONTH	AVERAGE NUMBER OF DAYS DNIF THIS YEAR
PHYSIOLOGICAL TRAINING (N=243) PRESSURE SUITS (N=55) SUPERVISORS AND ADMINISTRATORS (N=50) HYPERBARIC CHAMBER (N=10) RESEARCH CHAMBER (N=8) CENTRIFUGE (N=6)	11 2 5 1 16	1 12	26 18 24 9 21 126
1-24 MONTHS TAFMS (N=105) 1-48 MONTHS TAFMS (N=180) 49-96 MONTHS TAFMS (N=88) 97+ MONTHS TAFMS (N=129)	9 9 10 5		25 25 26 27
91150 CONUS (N=156) 91150 OVERSEAS (N=27)	6 VO	н н	28 33
ALL IN SAC (N=115) ALL IN ATC (N=97) ALL IN AFSC (N=66) ALL IN TAC (N=43) ALL IN AFLC (N=16) ALL IN USAFE (N=12) ALL IN PACAF (N=12) ALL IN SPACE (N=12)	6 8 9 11 9 9	010110104	26 30 28 28 22 19 21
1-48 IN SAC (N=56) 1-48 IN ATC (N=56) 1-48 IN TAC (N=20) 1-48 IN USAFE (N=8) 1-48 IN SPACE (N=7)	8 9 9 20	211416	28 29 17 22 19

IMPLICATIONS

This survey was requested to validate the September 1988 Specialty Training Standard (STS). Overall, analysis indicates the STS is well supported by survey data.

Specifically, there are only two STS elements matched to tasks performed by fewer than 20 percent of criterion group members. There are a number of tasks not matched to any STS elements that should be reviewed as they suggest some STS paragraphs can be expanded and other appropriately added to include these tasks. Most 3-skill level proficiency codes need to be changed from a knowledge to a skill performance level because more than 30 percent of first-enlistment respondents are performing matched tasks.

APPENDIX A

SELECTED REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF CAREER LADDER JOBS

GROUP ID NUMBER AND TITLE: STG030, PHYSIOLOGY TRAINING PERSONNEL PERCENT OF TOTAL SAMPLE: 61%

		MEMBERS
		PERFORMING
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER FLIGHTS	
H240	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	97
H244	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	97
H245	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	96
G222	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	96
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	96 95
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	93
G177	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS	91
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT	
	PROBLEMS	89
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS	85
G223	TREAT CHAMBER REACTORS FOR TOOTH PROBLEMS	82
G180	BRIEF ON USE OF SPATIAL DISORIENTATION TRAINERS	
	(VERTIGON)	80
E119	MAKE ENTRIES ON AF FORMS 701 (CHAMBER FLIGHT RECORD)	78
G179	BRIEF ON USE OF EMERGENCY AND PORTABLE OXYGEN SYSTEMS	
	DURING HYPOBARIC CHAMBER FLIGHTS	77
H246	STORE HIGH PRESSURE OXYGEN CYLINDERS	75
F153	CLEAN AEROSPACE PHYSIOLOGY TRAINING AIDS AND EQUIPMENT SERVE AS LECTURER ORSERVER ON HYPORARIC CHAMBER FLIGHTS	74
11273	CLAYD NO DECICALLY OPERADY CAN HIT OPINIO CHAMPER I DIONID	, ,
	BRIEF ON POSTFLIGHT PROCEDURES OF CHAMBER FLIGHTS	72
G175	•	
	PRIOR TO HYPOBARIC CHAMBER FLIGHTS	72
	INSTRUCT PROCEDURES FOR TREATING HYPERVENTILATION	72
G224		71
	INSTRUCT PROCEDURES FOR TREATING HYPOXIA	71
	BRIEF ON PREFLIGHT PROCEDURES OF CHAMBER FLIGHTS	
	OPERATE SPATIAL DISORIENTATION TRAINERS	68
G194	CONDUCT CLASSROOM INSTRUCTION ON USE OF OXYGEN MASKS	64
D 95		
	CLASSES	57
E117	· · · · · · · · · · · · · · · · · · ·	
	RECORD)	56

GROUP ID NUMBER AND TITLE: NUMBER IN GROUP: 55

STG012, PRESSURE SUIT PERSONNEL PERCENT OF TOTAL SAMPLE: 14%

		PERCENT
		MEMBERS
		PERFORMING
	ACCION ORDINAMENTO IN DOMINIO PROGRED OUT	
F333	ASSIST CREWMEMBERS IN DONNING PRESSURE SUIT	91
T 000	ASSEMBLIES	91
L332	ASSIST CREWMEMBERS IN DOFFING PRESSURE SUIT	91
1 270	ASSEMBLIES PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF	91
P2/0	FULL PRESSURE SUITS	89
T 230	DRIVE PILOT TRANSPORT VANS	89
	PERFORM OCCUPIED FULL PRESSURE SUIT INTEGRATION	0,
B 333	mp.ana i .	87
T.337	CONNECT OR DISCONNECT CREW MEMBERS TO OR FROM	.
430,	AIRCRAFT	84
L351	OPERATE PORTABLE LOX VENTILATION UNITS	84
L340	FILL PORTABLE LIQUID OXYGEN (LOX) VENTILIATION	
	UNITS	82
K296	LOAD OR UNLOAD LIFE SUPPORT EQUIPMENT, SUCH AS	78
	SURVIVAL KITS OR PARACHUTES, FROM AIRCRAFT	78
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER	
	FLIGHTS	78
	REMOVE OR REPLACE FULL PRESSURE SUIT COMPONENTS	76
	CLEAN PRESSURE SUITS	73
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN	
	CYLINDERS	73
K307	PERFORM PREFLIGHT AND POSTFLIGHT INSPECTIONS	73
	OF PARACHUTES	73
F158	INSPECT UXIGEN EQUIPMENT ITEMS IN ATROCKAFT FOR	
	OPERATIONAL CONDITION	73
	ISOLATE FULL PRESSURE SUIT MALFUNCTIONS	71
K308	PERFORM PREFLIGHT AND POSTFLIGHT INSPECTIONS OF SURVIVAL KIT ASSEMBLIES	71
T 271	PERFORM PREFLIGHT OR POSTFLIGHT INSPECTIONS OF	/1
P2/I	LOW FLIGHT OXYGEN REGULATORS	65
T 274	PERFORM PREFLIGHT PHYSICAL EXAMINATIONS	65
	PREPARE PRESSURE SUIT ASSEMBLIES FOR SHIPMENT	
	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER	UJ .
11240	FLIGHTS	64
T.338	DISASSEMBLE PRESSURE SUIT HARDWARE, SUCH AS NECK	~ ·
2000	RINGS OR URINE COLLECTION VALVES	60
L331	ASSEMBLE PRESSURE SUIT HARDWARE, SUCH AS NECK	-
	RINGS OR URINE COLLECTION VALVES	60

GROUP ID NUMBER AND TITLE: NUMBER IN GROUP: 50

STG026, SUPERVISORS AND ADMINISTRATORS PERCENT OF TOTAL SAMPLE: 14%

		MEMBERS PERFORMING
D 06	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED	
B 20	PROBLEMS	98
4 7	DETERMINE WORK PRIORITIES	94
A /		94
A 12		94
A 11		
A 20	UPDATE LOCAL OPERATING INSTRUCTIONS	92
B 34		90
C 46		
	DEVELOP WORK METHODS	90
		88
H242		
	FLIGHTS	88
A 17	PLAN WORK ASSIGNMENTS	86
C 58	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	86
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	84
G222	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	84
	ASSIGN PERSONNEL TO DUTY POSITIONS	82
	TREAT CHAMBER REACTORS FOR TOOTH PROBLEMS	82
B 36	SUPERVISE AEROSPACE PHYSIOLOGY SPECIALISTS	
	(AFSC 91150)	80
A 19	SCHEDULE TDY, LEAVES, OR PASSES	80
C 44	ANALYZE WORKLOAD REQUIREMENTS	80
C 47	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR	
	RECLASSIFICATION	78
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT	
	PROBLEMS	78
G224	TREAT CHAMBER REACTORS WITH EVOLVED GAS DISORDERS	78
B 22	CONDUCT STAFF MEETINGS	76
	BRIEF ON USE OF EMERGENCY AND PORTABLE OXYGEN SYSTEMS	
	DURING HYPOBARIC CHAMBER FLIGHTS	74
G177	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS	74

GROUP ID NUMBER AND TITLE:

STG027, HYPERBARIC CHAMBER PERSONNEL PERCENT OF TOTAL SAMPLE: 3%

NUMBER IN GROUP: 10

		PERCENT MEMBERS PERFORMING
J271	SERVE AS INSIDE OBSERVER ON HYPERBARIC CHAMBER	4
	DIVES	100
	SERVE AS CREW CHIEF ON HYPERBARIC CHAMBER DIVES	
J269	SERVE AS CHAMBER OPERATOR ON HYPERBARIC CHAMBER DIVES	100
J261	PERFORM DAILY INSPECTIONS OF HYPERBARIC CHAMBER	100
	ASSEMBLIES	100
.1258	CLEAN HYPERBARIC CHAMBERS	100
	LOAD OR UNLOAD PATIENTS INTO OR FROM HYPERBARIC	100
	CHAMBERS	90
J272		,,
	DIVES	90
J268	REMOVE OR REPLACE OXYGEN EQUIPMENT ITEMS IN	,,,
	HYPERBARIC CHAMBERS	90
J264	PERFORM PERIODIC OR 30-DAY INSPECTIONS OF	,,,
	HYPERBARIC CHAMBER ASSEMBLIES	90
J273	SERVE AS RECORDER ON HYPERBARIC CHAMBER DIVES	80
J274	SERVE AS TIMEKEEPER ON HYPERBARIC CHAMBER DIVES	80
1262	PERFORM GENERAL MAINTENANCE ON HYDERARIC	
	CHAMBER ASSEMBLIES	80
J265	CHAMBER ASSEMBLIES PERFORM SPECIAL OR 180-DAY INSPECTIONS OF HYPERBARIC CHAMBER ASSEMBLIES MAKE ENTRIES ON AF FORMS 1354 (HYPERBARIC CHAMBER OPERATION RECORD)	
	HYPERBARIC CHAMBER ASSEMBLIES	80
E110	MAKE ENTRIES ON AF FORMS 1354 (HYPERBARIC	
	CHAMBER OPERATION RECORD)	70
A IZ	ESTABLISH WORK SCHEDULES	70
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	60
J275	TAKE PERIODIC SAMPLES OF AIR IN COMPRESSED	
	AIR FLASKS	60
E132	MAKE ENTRIES ON AFTO FORMS 95 (SIGNIFICANT	
	HISTORICAL DATA)	60
	PERFORM 30-DAY INSPECTIONS OF OXYGEN MASKS	60
J267	REMOVE OR REPLACE HYPERBARIC CHAMBER INTERCOM	
	SYSTEM COMPONENTS	60
G197	CONDUCT HYPERBARIC CHAMBER TEAM TRAINING	50
E127	CONDUCT HYPERBARIC CHAMBER TEAM TRAINING MAKE ENTRIES ON AFTO FORMS 244 (INDUSTRIAL/ SUPPORT EQUIPMENT RECORD) MAINTAIN RECORDS ON STATUS OF INSPECTION OF	
	SUPPORT EQUIPMENT RECORD)	50
E104	MAINTAIN RECORDS ON STATUS OR INSPECTION OF	
	EQUIPMENT	50
B 36		
	(AFSC 91150)	50

GROUP ID NUMBER AND TITLE: NUMBER IN GROUP: 8

STG032, RESEARCH CHAMBER PERSONNEL PERCENT OF TOTAL SAMPLE: 2%

		PERCENT MEMBERS
		PERFORMING
	SERVE AS CREW CHIEF ON RESEARCH CHAMBER FLIGHTS	100
H240	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER	
	FLIGHTS	100
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	
N499	SERVE AS INSIDE OBSERVER ON RESEARCH CHAMBER FLIGHTS	
N497	SERVE AS CHAMBER OPERATOR ON RESEARCH CHAMBER FLIGHTS	
H242		88
F155		88
N500	SERVE AS LOCK OPERATOR ON RESEARCH CHAMBER FLIGHTS SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	88
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	75
N461	OPERATE DOPPLER ULTRASOUND DEVICES	75
N501	SERVE AS OUTSIDE OBSERVER ON RESEARCH CHAMBER FLIGHTS	75
N503	SERVE AS RECORDER ON RESEARCH CHAMBER FLIGHTS	75
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS	75
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	75
G222	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	75
H246	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS TREAT CHAMBER REACTORS FOR SINUS PROBLEMS STORE HIGH PRESSURE OXYGEN CYLINDERS INVENTORY EQUIPMENT, TOOLS, AND SUPPLIES	75
F159	INVENTORY EQUIPMENT, TOOLS, AND SUPPLIES	63
H227	PERFORM GENERAL MAINTENANCE ON HYPOBARIC CHAMBERS	63
E102	MAINTAIN RECORDS ON CHAMBER RESEARCH SUBJECTS	. 50
N492		50
N474	PERFORM DAILY INSPECTIONS OF HUMAN EXPERIMENTAL	
	HYPOBARIC OR HYPERBARIC CHAMBERS	50
E149	REVIEW RESEARCH SUBJECT RECORDS FOR COMPLIANCE WITH	
	HUMAN USE COMMITTEE DIRECTIVES	38

GROUP ID NUMBER AND TITLE: NUMBER IN GROUP: 6

STG009, CENTRIFUGE PERSONNEL PERCENT OF TOTAL SAMPLE: 2%

		PERCENT MEMBERS PERFORMING
N450	CONNECT PERSONAL EQUIPMENT TO CENTRIFUGES DISCONNECT PERSONAL EQUIPMENT FROM CENTRIFUGES	100
N453	DISCONNECT PERSONAL EQUIPMENT FROM CENTRIFUGES	100
	DISCONNECT BIOMEDICAL INSTRUMENTATION FROM SUBJECTS	
	CONNECT BIOMEDICAL INSTRUMENTATION TO SUBJECTS	83
	OPERATE STRIP CHART RECORDERS	83
	PERFORM PRE- AND POST-RUN INSPECTIONS OF CENTRIFUGES	
	SET SEAT CONFIGURATIONS IN CENTRIFUGES	83
N456	INSTALL GAS SYSTEMS ON CENTRIFUGE ACCORDING TO	
	G PROFILE	83
	PERFORM DAILY INSPECTIONS OF CENTRIFUGES	67
	SIZE AND FIT RESEARCH SUBJECTS WITH OXYGEN EQUIPMENT	
N454	FIT CREWMEMBERS WITH IN-FLIGHT MONITORING EQUIPMENT	67
N470	PERFORM AS CENTRAL OBSERVER ON CENTRIFUGES SIZE AND FIT ANTI-G PROTECTIVE EQUIPMENT UPDATE LOCAL OPERATING INSTRUCTIONS STORE OXYGEN EQUIPMENT REMOVE OR REPLACE OXYGEN MASK COMPONENTS	67
N505	SIZE AND FIT ANTI-G PROTECTIVE EQUIPMENT	67
A 20	UPDATE LOCAL OPERATING INSTRUCTIONS	67
K320	STORE OXYGEN EQUIPMENT	67
K315	REMOVE OR REPLACE OXYGEN MASK COMPONENTS	67
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS	50
B 36	SUPERVISE AEROSPACE PHYSIOLOGY SPECIALISTS (AFSC 9115	0) 50
N471	PERFORM AS CENTRIFUGE CREW CHIEF	50
K277	ASSEMBLE LIFE SUPPORT EQUIPMENT, SUCH AS OXYGEN MASKS	
	OR HELMETS	50
N472	PERFORM AS CENTRIFUGE OPERATOR	50
N460	OPERATE COMPUTER SYSTEMS FOR CENTRIFUGES	50

APPENDIX B

REPRESENTATIVE TASKS PERFORMED BY MEMBERS OF DAFSC GROUPS

TABLE B1

REPRESENTATIVE TASKS PERFORMED BY DAFSC 91130 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=95)
H245	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	94
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER FLIGHTS	94
H240	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	92
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	91
H244	SERVE AS LOCK OPERATOR ON HYPOBARIC CHAMBER FLIGHTS	89
	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	86
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	84
F153	CLEAN AEROSPACE PHYSIOLOGY TRAINING AIDS AND EQUIPMENT	79
	MAKE ENTRIES ON AF FORMS 701 (CHAMBER FLIGHT RECORD)	
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN CYLINDERS	76
F156	CUT GRASS, TRIM SHRUBBERY, POLICE SQUADRON AREAS, OR DISPOSE OF TRASH	75
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT	
	PROBLEMS	75
G177	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS	74
E117	MAKE ENTRIES ON AF FORMS 699 (PHYSIOLOGICAL TRAINING	
	RECORD)	74
	STORE HIGH PRESSURE OXYGEN CYLINDERS	68
G180	BRIEF ON USE OF SPATIAL DISORIENTATION TRAINERS	
	(VERTIGON)	68
G223	TREAT CHAMBER REACTORS FOR TOOTH PROBLEMS	66
M401	OPERATE SPATIAL DISORIENTATION TRAINERS	64
K312	RECHARGE PORTABLE OXYGEN ASSEMBLIES	62
K290	FIT STUDENT AND PATIENT OXYGEN MASKS	54
D 95	SCHEDULE STUDENTS FOR AEROSPACE PHYSIOLOGY TRAINING	
	CLASSES	52
K288	FIT STUDENT AND CREWMEMBER FLIGHT HELMETS	48
	SCORE TESTS	47
K285	FIT CREWMEMBER OXYGEN MASKS	47

TABLE B2

REPRESENTATIVE TASKS PERFORMED BY DAFSC 91150 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=190)
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER	
	FLIGHTS	88
	SERVE AS RECORDER ON HYPOBARIC CHAMBER FLIGHTS	82
	SERVE AS CHAMBER OPERATOR ON HYPOBARIC CHAMBER	•
	FLIGHTS	82
H244		0.0
	FLIGHTS	80
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	79
H241	SERVE AS CREW CHIEF ON HYPOBARIC CHAMBER FLIGHTS	78
	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	78
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL	~ .
	TRACT PROBLEMS	71
H225	CONNECT AND DISCONNECT HIGH PRESSURE OXYGEN	
	CYLINDERS	77
G177	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER	
	FLIGHTS	71
	CONDUCT TOURS OF AEROSPACE PHYSIOLOGY FACILITIES	66
	BRIEF ON USE OF EMERGENCY AND PORTABLE OXYGEN	- 4
	SYSTEMS DURING HYPOBARIC CHAMBER FLIGHTS	64
H246	STORE HIGH PRESSURE OXYGEN CYLINDERS	64
G174	BRIEF ON POSTFLIGHT PROCEDURES OF CHAMBER	
	FLIGHTS	63
H243	SERVE AS LECTURER OBSERVER ON HYPOBARIC CHAMBER	
	FLIGHTS	63
F153		
	EQUIPMENT	62
G176		
	FLIGHTS	61
E119		
	RECORD)	60
G175	BRIEF ON PREFLIGHT OXYGEN EQUIPMENT INSPECTION	
	PROCEDURES PRIOR TO HYPOBARIC CHAMBER FLIGHTS	58 .
	INSTRUCT PROCEDURES FOR TREATING HYPERVENTILATION	56
	BRIEF ON USE OF SPATIAL DISORIENTATION TRAINERS	
	(VERTIGON)	56
	INSTRUCT PROCEDURES FOR TREATING HYPOXIA	55
G192		
	OYYCEN STOPACE SYSTEMS	49

TABLE B3

REPRESENTATIVE TASKS PERFORMED BY DAFSC 91170 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMING (N=90)
C 62	WRITE APR	86
A 7	DETERMINE WORK PRIORITIES	84
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER FLIGHTS	83
B 36		0.1
B 26	(AFSC 91150) COUNSEL PERSONNEL ON PERSONAL OR MILITARY-RELATED	81
<i>D</i> 20	PROBLEMS	79
G221	TREAT CHAMBER REACTORS FOR MIDDLE EAR PROBLEMS	
	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	
	UPDATE LOCAL OPERATING INSTRUCTIONS	76
	ESTABLISH WORK SCHEDULES	74
	TREAT CHAMBER REACTORS FOR SINUS PROBLEMS	74
	MAKE ENTRIES ON AF FORMS 623 AND 623A (ON-THE-JOB	
	TRAINING RECORD)	74
A 8	DEVELOP WORK METHODS	71
G179	BRIEF ON USE OF EMERGENCY AND PORTABLE OXYGEN	
	SYSTEMS DURING HYPOBARIC CHAMBER FLIGHTS	71
H243	SERVE AS LECTURER OBSERVER ON HYPOBARIC CHAMBER	
	FLIGHTS	70
	TREAT CHAMBER REACTORS FOR TOOTH PROBLEMS	70
G177	BRIEF ON RAPID DECOMPRESSION DURING CHAMBER FLIGHTS	69
G224	TREAT CHAMBER REACTORS WITH EVOLVED GAS DISORDERS	69
B 35	ORIENT NEWLY ASSIGNED PERSONNEL	69
G176	BRIEF ON PREFLIGHT PROCEDURES OF CHAMBER FLIGHTS	69
B 34	INTERPRET DIRECTIVES FOR SUBORDINATES	68
G175	BRIEF ON PREFLIGHT OXYGEN EQUIPMENT INSPECTION	
	PROCEDURES	68
G220	TREAT CHAMBER REACTORS FOR GASTROINTESTINAL TRACT	
	PROBLEMS	68
G174	BRIEF ON POSTFLIGHT PROCEDURES OF CHAMBER FLIGHTS	67
	PLAN WORK ASSIGNMENTS	66
	CONDUCT TOURS OF AEROSPACE PHYSIOLOGY FACILITIES	66
C 63	WRITE AWARDS AND DECORATIONS RECOMMENDATIONS	64

TABLE B4

REPRESENTATIVE TASKS PERFORMED BY DAFSC 91190/00 PERSONNEL

TASKS		PERCENT MEMBERS PERFORMIN (N=22)
B 26	COUNSEL PERSONNEL ON PERSONAL OR MILITARY-	
	RELATED PROBLEMS	100
C 48	EVALUATE INSPECTION REPORT FINDINGS	100
C 63	WRITE AWARDS AND DECORATIONS RECOMMENDATIONS	100
A 11	ESTABLISH PERFORMANCE STANDARDS FOR SUBORDINATES	95
	DETERMINE WORK PRIORITIES	95
A 2	ASSIGN PERSONNEL TO DUTY POSITIONS	95
C 62	WRITE APR	91
A 8	DEVELOP WORK METHODS	91
B 22	CONDUCT STAFF MEETINGS	86
C 45	EVALUATE BUDGET REQUIREMENTS	86
	SCHEDULE TDY, LEAVES, OR PASSES	86
	INDORSE AIRMAN PERFORMANCE REPORTS (APR)	86
A 9	DRAFT BUDGET REQUIREMENTS	86
	ESTABLISH ORGANIZATIONAL POLICIES	86
	EVALUATE COMPLIANCE WITH WORK PERFORMANCE STANDARDS	
	UPDATE LOCAL OPERATING INSTRUCTIONS	86
	EVALUATE WORK SCHEDULES	86
A 12	ESTABLISH WORK SCHEDULES	86
	WRITE STAFF STUDIES, SURVEYS, OR SPECIAL REPORTS	82
	SUPERVISE AEROSPACE PHYSIOLOGY SUPERVISORS	
	(AFSC 91170)	82
	INTERPRET DIRECTIVES FOR SUBORDINATES	82
	EVALUATE INDIVIDUALS FOR PROMOTION, DEMOTION, OR	
	RECLASSIFICATION	82
H242	SERVE AS INSIDE OBSERVER ON HYPOBARIC CHAMBER	
	FLIGHTS	82
B 35		82
B 32	INITIATE PERSONNEL ACTION REQUESTS, SUCH AS AF	
	FORMS 2095 (ASSIGNMENT/PERSONNEL ACTION)	77
A 13	PLAN BRIEFINGS	82